

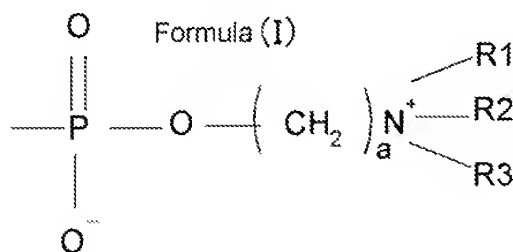
CLAIMS

1. A method for preparing platelet-rich plasma, comprising adding a polymer having a residue of an organic phosphate compound to blood.

2. A method for preparing platelet-rich plasma, comprising the step of adding a polymer having a residue of an organic phosphate compound to blood to selectively precipitate erythrocytes.

3. The method for preparing platelet-rich plasma according to Claim 1 or 2, comprising, as the polymer having a residue of an organic phosphate compound, a compound having in its side chain a group represented by the Formula (I) below:

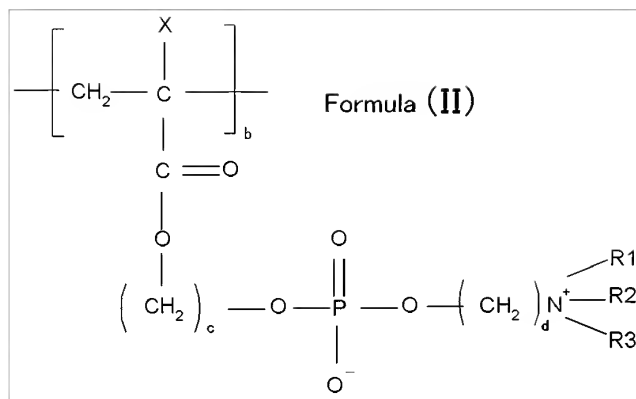
[Chem. 1]



(wherein R1, R2 and R3 are each independently a straight or branched chain alkyl group having a carbon number of 1 to 8, and a is an integer of 1 to 12).

4. The method for preparing platelet-rich plasma according to Claim 3, comprising, as the polymer having a residue of an organic phosphate compound, a compound represented by the Formula (II) below:

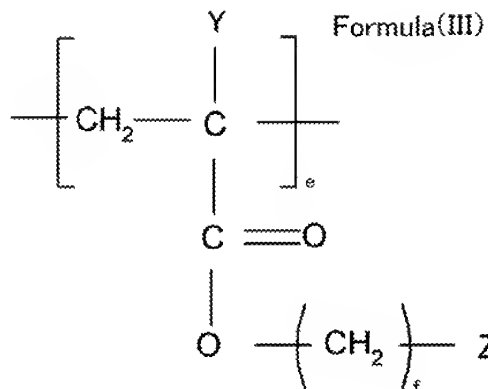
[Chem. 2]



(wherein X is -H or -CH₃, R1, R2 and R3 are each independently a straight or branched chain alkyl group having a carbon number of 1 to 8, b is an integer of 1 to 4,000, c is an integer of 1 to 6, and d is an integer of 1 to 12).

5. The method for preparing platelet-rich plasma according to any one of Claims 1 to 4, further comprising, as the polymer having a residue of an organic phosphate compound, a compound represented by the Formula (III) below:

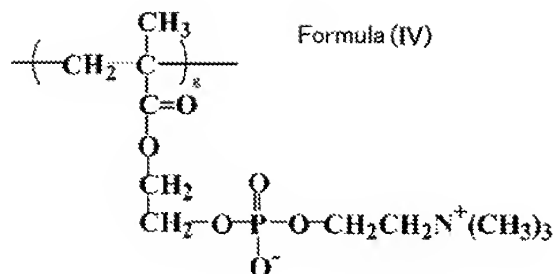
[Chem. 3]



(wherein Y is -H or -CH₃, Z is -H, -OH, -COOH, -COONa, -COOK, -SO₃H, -SO₃Na, -SO₃K, -NH₂, -NHR₁, -NR₁R₂, -N⁺R₁R₂R₃OH⁻, -N⁺R₁R₂R₃SO₃⁻, -N⁺R₁R₂R₃NO₃⁻, -N⁺R₁R₂R₃PO₃⁻ [wherein R₁, R₂ and R₃ are independently -(CH₂)_xH, wherein x is an integer of 1 to 5], -O-PO₃Na, -O-PO₃K, -O-PO₃H, -OR₄H, -COOR₄H, -C=O-R₄H, [wherein R₄ is aliphatic hydrocarbon, wherein the number of hydrocarbon is 0 to 20] or -O-R₅ [R₅ is an aromatic hydrocarbon group], e is an integer of 1 to 4,000, and f is an integer of 0 to 20).

6. The method for preparing the platelet-rich plasma according to Claim 4 or 5, comprising, as the polymer having a residue of an organic phosphate compound, a compound represented by the Formula (IV) below:

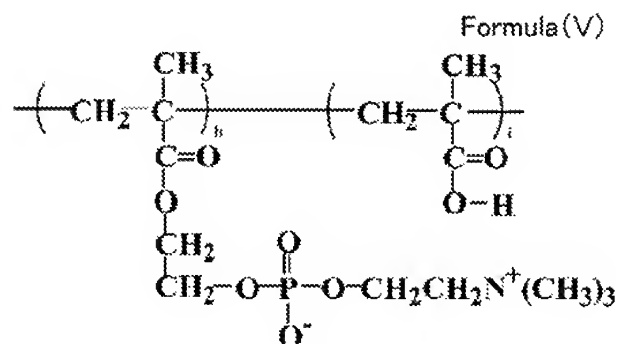
[Chem. 4]



(wherein g is an integer of 1 to 4,000).

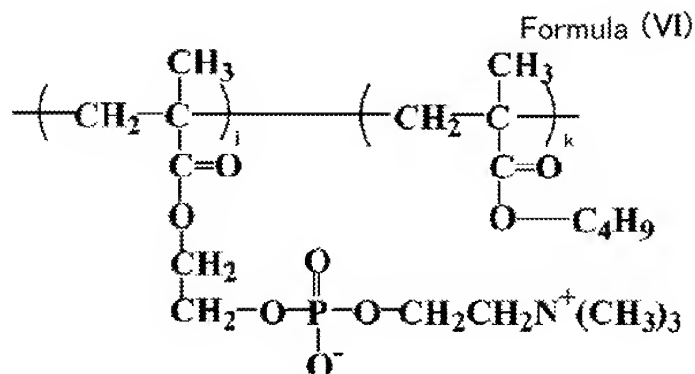
7. The method for preparing the platelet-rich plasma according to any one of Claims 3 to 6, comprising, as the polymer having a residue of an organic phosphate compound, a compound represented by any of the Formulae (V) to (VII) below:

[Chem. 5]



(wherein h and i are each independently an integer of 1 to 4,000),

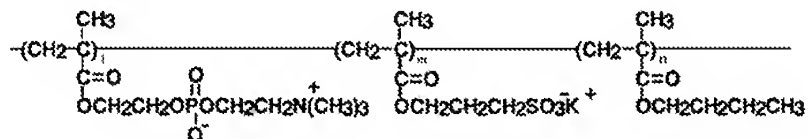
[Chem. 6]



(wherein j and k are each independently an integer of 1 to 4,000), and

[Chem. 7]

Formula (VII)



(wherein l, m and n are each independently an integer of 1 to 4,000).

8. A platelet-rich plasma obtained by the method for preparing according to any one of Claims 1 to 7.

9. A tissue and/or an organ repair enhancer comprising the platelet-rich plasma according to Claims 8.

10. A tissue and/or an organ repair enhancer, augmentation additive of bone surrounding dental implant, additive when implanting bone or artificial bone into a bone deficient part, wound healing enhancer, tissue healing enhancer after therapy or treatment for plastic and/or cosmetic purpose, skin disease therapeutic agent, skin ulcer therapeutic agent, nerve tissue repair agent and/or tissue repair agent after surgery comprising the platelet-rich plasma according to Claim 8.

11. Any of the following therapeutic methods or treatment methods, comprising administering the platelet-rich plasma according to Claim 8:

- 1) augmenting bone surrounding dental implant,
- 2) skin disease,
- 3) repairing tissue for plastic and/or cosmetic purpose,
- 4) repairing bone deficient part,
- 5) repairing nerve tissue, and
- 6) repairing tissue after surgery.

12. A polymer for preparing the platelet-rich plasma according to Claim 8.

13. A reagent or a reagent kit for preparing platelet-rich plasma comprising the polymer according to Claim 12.

14. A device for preparing the platelet-rich plasma according to Claim 8.